91.2

6

435

435

8/5/97

9/6/96

Form PTO	1449	_	rtment of e Patent	ATTY DOCKET NO P-UW 4979	:		AL NO. 72,834
		and Tra	ıdemark	APPLICANT: Loe	b et al.		
INFORMAT STATEMEN	ION D	ISCLOSURE	3	FILING DATE: October 4, 200	1	GROU 1656	
	APR 1	1 2002	v.s.	PATENT DOCUMENTS	3		APR 1 2 CENTER
EXAM. INITIALS		OF OMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	2002 1 690 1690 1690 1690 1690 1690 1690 1690 1690
1		5,614,365	3/25/97	Tabor et al.	435	6	11/\$\text{\$\text{\$\text{94}}}
i		5,945,312	8/31/99	Goodman et al.	435	91.1	11/7/97
		5,948,614	9/7/99	Chatterjee	435	6	9/6/96
		5,976,842	11/2/99	Wurst	435	91.2	10/30/97

FOREIGN PATENT DOCUMENTS

8/17/99

1/18/00

5,939,292

6,015,668

Gelfand et al.

Hughes et al.

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)
V	EP 0416801	8/29/90	European			
Ì	EP 0655506	11/24/96	European			
	EP 0727496	11/24/94	European			
	WO 91/02090	2/21/91	PCT			
	WO 95/14782	6/1/95	PCT			
	WO 95/33853	14/12/95	PCT	C120	1/68	
	WO 96/10640	4/11/96	PCT		,	
	WO 96/34980	11/7/96	PCT			
W	WO 96/41014	19/12/96	PCT	C12Q	1/68	
N	2302590	12/11/96	United Kingdom			

EXAMINER	1	DATE CONSIDERED	4/28/04

Form PTO 1449 US Department of Commerce Patent	ATTY DOCKET NO: P-UW 4979	SERIAL NO. 09/972,834
and Trademark Office	APPLICANT: Loeb et al.	н ТЕСН
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: Fictober 4, 2001	GROUPEN LE
		200; 1600
ADEMARKS		/290

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

N	Barnes, "PCR amplification of up to 35-kb DNA with high-fidelity and high-yield from λ bacteriophage templates," Proc. Natl. Acad. Sci. USA, 91:2216-2220 (1994).
1	Barnes, "The fidelity of <i>Taq</i> polymerase catalyzing PCR is improved by an N-terminal deletion," <u>Gene</u> , 112:29-35 (1992).
	Bebenek et al., "The Fidelity of DNA Synthesis Catalyzed by Derivatives of <i>Escheria coli</i> DNA Polymerase I," J <u>. Biol. Chem.</u> , 265:13878-13887 (1990).
	Beese et al., "Structure of DNA polymerase I klenow fragment bound to duplex DNA," <u>Science</u> 260:352-355 (1993)
	Bell et al., "Base Miscoding and Strand Misalignment Errors by Mutator Klenow Polymerases with Amino Acid Substitutions at Tyrosine 766 in the O Helix of the Fingers Subdomain," J. Biol. Chem., 272:7345-7351 (1997).
	Braithwaite and Ito, "Compilation, alignment, and phylogenetic relationships of DNA polymerases," Nucleic Acids Res. 21:787-802 (1993)
	Carroll et al., "A mutant of DNA polymerase I (Klenow fragment) with reduced fidelity," Biochem., 30:804-813 (1991).
	Dong and Wang, "Mutational Studies of Human DNA Polymerase α ," <u>J. Biol.</u> <u>Chem.</u> , 270:21563-21570 (1995).
<i>y</i>	Drosopoulos and Prasad, "Increased Polymerase Fidelity of E89G, a Nucleoside Analog-Resistant Variant of Human Immunodeficiency Virus Type 1 Reverse Transcriptase," J. Virol., 70:4834-4838 (1996).
N	Dube et al., "Artificial mutants generated by the insertion of random oligonucleotides into the putative nucleoside binding site of the HSV-1 thymidine kinase gene," <u>Biochemistry</u> 30:11760-11767 (1991)

172.1	EXAMINER	1	DATE CONSIDERED	4/28/05
-------	----------	---	-----------------	---------

Form	PTO 14	49 US Department of Commerce Patent	ATTY DOCKET NO: P-UW 4979	SERIAL NO. 09/972,834	
		and Trademark Office	APPLICANT: Loeb et al.	TEC R	
	INFORMATION DISCLOSURE APR 1 1 2002 CFILING DATE: STATEMENT BY APPLICANT APR 1 1 2002 COctober 4, 2001 GROUPS TO THE CONTROL OF THE CONTROL				
	THE TRADEMARKET				
1			of DNA Replication Fidelity for Fragment (KF(exo [*]), KF(polA5), 1991).		
		Fry and Loeb, <u>Animal Cel</u> Raton, FL (1986)	l DNA Polymerases pp.157-183, C	RC Press Boca	
			ion and structure relationships Biochem. 63:777-822 (1994)	in DNA	
			unodeficiency virus reverse trar merase I in <i>Escherichia coli,"</i> F 5)		
		Kim et al., "Crystal str Nature 376:612-616 (1995	ucture of Thermus aquaticus DNA)	polymerase,"	
		Kunkel, "DNA replication (1992)	fidelity," J <u>. Biol. Chem.</u> 267:	18251-18254	
			ient site-specific mutagenesis v roc. Natl. Acad. Sci. USA 82:48		
		metal ion activators and	fidelity of DNA replication: ef deoxyribonucleoside triphosphat iol. Chem. 254:5718-5725 (1979)	e pools on in	
		Lawyer et al., "Isolatio coli of the DNA Polymera 264:6427-6437 (1989).	n, Characterization, and Express se Gene from <i>Thermus aquaticus</i> ,	sion in <i>Escheria</i> J <u>. Biol. Chem.</u> ,	
		Loeb, "Microsatellite In Cancer," <u>Cancer Research</u>	stability: Marker of a Mutator I _ 54:5059-5063 (1994)	Phenotype in	
U		Loeb, *Unnatural nucleot Pharmacology 35:321-347	ide sequences in biopharmaceutic	cs," A <u>dvances in</u>	
N		Newcomb et al., "High Fi FASEB J. 11:A1249, abst	delity Taq Polymerases For Mutat ract 2295 (1997)	tion Detection,"	

EXAMINER	DATE CONSIDERED	4/28/-8

Form PTO 14	49 US Department of Commerce Patent	ATTY DOCKET NO: P-UW 4979	SERIAL NO. 09/972,834		
	and Trademark Office OIPE	APPLICANT: Loeb et al.	TEC		
INFORMATION STATEMENT B	DISCLOSURE APR 1 1 2002	FILING DATE: October 4, 2001	GROUPS: APR C		
TADEMARKER TO THE TOTAL TO THE					
N	Pandey et al., "Role of I Type-1 Reverse Transcrip DNA Synthesis," <u>Biochem</u> .	Methionine 184 of Human Immunode tase in the Polymerase Function , 35:2168-2179 (1996).	ficiency Virus O		
	Reha-Krantz and Nonay, "I in Primer Extension and I 269:5635-5643 (1994).	MotifA of Bacteriophage T4 DNA F DNA Replication Fidelity," J <u>. Bi</u>	olymerase: Role		
	Suzuki et al., "Low Fide DNA Polymerase I," <u>J. Bi</u>	lity Mutants in the O-Helix of 7 ol. Chem. 272:11226-11235 (1997	hermus aquaticus)		
	Suzuki et al., "Random m I: concordance of immutal Proc. Natl. Acad. Sci. U	utagenesis of <i>Thermus aquaticus</i> ble sites <i>in vivo</i> with the cryst <u>SA</u> 93:9670-9675 (1996)	DNA polymerase al structure,"		
	Sweasy and Loeb, "Mammal polymerase I during DNA 267:1407-1410 (1992)	ian DNA polymerase β can substi replication in Escherichia coli,	tute for DNA " J <u>Biol</u> Chem.		
	Escherichia coli DNA pol	single residue in DNA polymeras ymerase I family is critical for xyribonucleotides," P <u>roc. Natl.</u>	distinguishing		
	Tindall and Kunkel, "Fid DNA polymerase," <u>Biochem</u>	elity of DNA synthesis by the Thistry 27:6008-6013 (1988)	nermus aquaticus		
	Wainberg et al., "Enhanc Transcriptase," <u>Science</u> ,	ed Fidelity of 3TC-Selected Muta 271:1282-1285 (1996).	ant HIV-1 Reverse		
N	Washington et al., "A ge mutator mutants," Proc.	netic system to identify DNA pol Natl. Acad. Sci. USA , 94:1321-1	ymerase β 326 (1997).		

EXAMINER	DATE CONSIDERED //20/5
	<u> </u>